What is claimed is:

1. A method of forming soot for use in making glass said method comprising the steps of:

a) delivering a liquid precursor to an injector having an injector orifice recessed within a burner assembly, said burner assembly having an atomization orifice;

b) discharging said liquid precursor through the injector orifice into a chamber defined by said burner assembly and said injector;

c) introducing a gas into said chamber to increase the pressure therein;

d) discharging said liquid precursor from the atomization orifice as an aerosol; and

e) reacting said aerosol in a flame produced by said burner assembly.

2. The method of claim 1 further comprising the step of fitting said injector with a removable liquid orifice insert defining a precision orifice having a diameter less than 0.011 inches.

3. The method of claim 1 wherein step c) comprises introducing an inert gas into said chamber.

4. The method of claim 3 wherein step c) further comprises introducing nitrogen into said chamber.

5. The method of claim 1 wherein step c) further comprises introducing oxygen into said chamber.

6. The method of claim 1 wherein said gas consists essentially of oxygen and nitrogen.

7. The method of claim 1 wherein said liquid precursor comprises a metal.

8. The method of claim 1 wherein said liquid precursor comprises a siloxane.

9. The method of claim 8 wherein said siloxane is octamethylcyclotetrasiloxane.

10. The method of claim 7 wherein said metal comprises a metal selected from the Groups IA, IB, IIA, IIB, IIIA, IIIB, IVA, IVB, VA, and the rare earth series of the Periodic Table of Elements.

11. A burner assembly for delivering a liquid precursor into a flame as an aerosol to form soot for making optical waveguides, said burner assembly comprising:

a housing having a burner face defining a plurality of gas orifices and an atomization orifice, said housing defining an injector chamber and a plurality of gas passageways, the gas passageways being in fluid communication with the gas orifices and the injector chamber; and

an injector having a first end defining an injector orifice in fluid communication with the liquid precursor, said injector being positioned within the injector chamber and, together with said housing, defining a pressurization chamber wherein the injector orifice is remote from the atomization orifice.

12. The burner assembly of claim 11 wherein said injector comprises a liquid tube and a liquid orifice insert.

13. The burner assembly of claim 12 wherein said liquid orifice insert is releasably engaged with said liquid tube.

14. The burner assembly of claim 12 wherein said liquid tube includes a plurality of atomization gas orifices circumferentially spaced around said liquid orifice insert.

15. The burner assembly of claim 12 wherein said liquid orifice insert comprises a material defining a precision orifice.

16. The burner assembly of claim 15 wherein said material comprises a jewel.

17. The burner assembly of claim 11 wherein the injector chamber is frustoconical and said atomization orifice is larger than said injector orifice.

18. The burner assembly of claim 11 wherein the portion of the burner face defining the atomization orifice is shaped to reduce turbulence.

19. A burner assembly for the liquid delivery of optical waveguide precursors, said burner assembly comprising :

an injector constructed and arranged to deliver the liquid precursor; and

a housing substantially surrounding said injector, said housing having a burner face including an orifice rim defining an atomization orifice, the orifice rim being shaped such that turbulence is reduced as the liquid precursor is discharged from the atomization orifice.

20. The burner assembly of claim 19 wherein the orifice rim is rounded.

21. The burner assembly of claim 20 wherein the rounded orifice rim has a radius of between about 1/4 to 2/3 of the atomization orifice diameter.